

Application No. 10/525,516
Amendment dated March 28, 2006
Reply to Office Action of December 1, 2005

Docket No.: 21029-00285-US1

AMENDMENTS TO THE CLAIMS

Claims 1-5. (Cancelled)

6. (Currently Amended) ~~The device as claimed in claim 5, characterized in that said correlation~~

A device for drying sludge originating in a waste water treatment plant, and comprising:
a greenhouse having a floor for receiving a bed of sludge to be dried, the greenhouse
employing solar energy;

means located in the greenhouse for ensuring that the sludge is spread over said floor and
turned as it progresses along the drying device;

fans positioned over the spreading means to provide for the renewal of air present in said
greenhouse; and

means for controlling start up and shut down of a drying cycle and automatic control of
all motorized components in response to measurement of the temperature of the surface of the
bed of sludge;

wherein the controlling means also take into account the difference in temperature
between the surface of the bed of sludge to be dried and the atmosphere present in the drying
plant, the equipment in the greenhouse only being started up when this temperature difference
reaches a predetermined set point.

Claim 7. (Cancelled)

8. (Currently Amended) ~~The device as claimed in any one of claims 5 to 7, characterized in that~~

A device for drying sludge originating in a waste water treatment plant, and comprising:
a greenhouse having a floor for receiving a bed of sludge to be dried, the greenhouse
employing solar energy;

means located in the greenhouse for ensuring that the sludge is spread over said floor and
turned as it progresses along the drying device; and

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fans positioned over the spreading means to provide for the renewal of air present in said greenhouse;

means for controlling start up and shut down of a drying cycle and of automatic control of all motorized components in response to measurement of the temperature of the surface of the bed of sludge;

wherein the measurements of temperature difference and of relative humidity of the external atmosphere are coupled so that the first of these two values which reaches a predetermined set point triggers the start up of the equipment.

Claims 9 and 10 (Cancelled)

11. (New) A device for drying sludge originating in a waste water treatment plant, and comprising:

a greenhouse having a floor for receiving a bed of sludge to be dried, the greenhouse employing solar energy;

means located in the greenhouse for ensuring that the sludge is spread over said floor and turned as it progresses along the drying device; and

fans positioned over the spreading means to provide for the renewal of air present in said greenhouse.

12. (New) The device as claimed in claim 11 further comprising means positioned in the top part of the greenhouse for sucking up and forcing air back into the greenhouse.

13. (New) The device as claimed in claim 11 together with additional means for ventilating the sludge via the ground and installed in a second half of a path followed by the sludge during spreading.

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14. (New) The device as claimed in claim 13 wherein -said additional system for ventilation comprises an additional fan which blows air into a pipe which extending from the slab via a geotextile membrane.

15. (New) The device as claimed in claim 11 together with means for controlling start up and shut down of a drying cycle and automatic control of all motorized components in response to measurement of the temperature of the surface of the bed of sludge.

16. (New) The device as claimed in claims 15, wherein the relative humidity content of the atmosphere outside the drying greenhouse is measured and set value for start up is established when the humidity is less than a predetermined value.

17. (New) The device as claimed in claim 11 together with a metered pumping means and associated distribution means for dispersing deposited sludge in a uniform layer over the entire width of the greenhouse.

18. (New) The device as claimed in claim 11 further comprising a heating system selectively including radiant panels and pipes for heating the upper surface of the bed of sludge by infrared radiation.

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